

IN THE CLAIMS:

Please amend claims 1, 6-7, 10-14, 16, and 17, cancel the second claim 3 without disclaimer or prejudice, and add new claims 19 and 20, as follows.

1. (Currently Amended) A mobile hand held terminal, ~~for recognizing a user's identity during an attempt to access the mobile terminal,~~ comprising:

at least one camera directed toward the user's face and ~~adapted~~ configured to record at least two still image of the user from at least first and second angles of view;

a memory means for storing unit configured to store user profile information relating to authorized users of a system; and

a processing means—unit connected to said at least one camera, ~~for processing~~ configured to process the still images obtained by said at least one camera and ~~generating~~ to generate a 3-dimensional model of the user's face, and ~~for comparing to compare~~ the generated model with the stored user profile information to determine whether the user is authorized to access a system, said processing ~~means—unit~~ comprising ~~means for granting access unit configured to grant~~ access to the system when the generated model matches the profile information of one of the authorized users stored in the memory ~~means~~ unit, thereby indicating recognition and authorization of the user, and ~~means for an~~ updating unit configured to update the profile information of the one of the authorized users with the generated model after each grant of access by said ~~means for~~

~~granting-access~~ unit such that the updated profile information comprises an average of the generated model and the previously stored profile information.

2. (Original) The mobile terminal of claim 1, further comprising a light source for projecting light at the user's face.

3. (Original) The mobile terminal of claim 2, wherein said light source projects structured light onto the user's face to facilitate the generation of the 3-dimensional model.

3. (Cancelled)

4. (Original) The mobile terminal of claim 1, wherein said at least one camera comprises a digital camera.

5. (Currently Amended) The mobile terminal of claim 1, wherein said memory ~~means~~-unit comprises at least one selected from a group consisting of RAM, ROM, EPROM and a magnetic storage media.

6. (Currently Amended) The mobile terminal of claim 1, wherein said processing ~~means-unit~~ comprises a computer, said memory ~~means-unit~~ being contained within said computer.

7. (Currently Amended) The mobile terminal of claim 1, wherein said at least one camera is ~~adapted~~ configured to obtain a 2-dimensional still image of the user's face, wherein the obtained 2-dimensional still image of the user's face is used to determine the user's facial texture, the determined facial texture being used in conjunction with the generated 3-dimensional model to determine whether the user is authorized to access the system.

8. (Original) The mobile terminal of claim 3, wherein said light source comprises at least one selected from a group consisting of white light, Laser light and infrared light.

9. (Original) The mobile terminal of claim 1, wherein said mobile terminal is a mobile telephone.

10. (Currently Amended) The mobile terminal of claim 1, wherein said mobile terminal is operatively ~~arranged~~ configured to transmit ~~for transmitting~~ the images to a

server over a network and to receive ~~receiving~~ a 3-dimensional model and a facial texture bit map from the server.

11. (Currently Amended) The mobile terminal of claim 1, further comprising ~~means for determining~~ unit configured to determine an orientation of the mobile terminal ~~for determining~~ to determine an angle between said at least first and second angles of view.

12. (Currently Amended) The mobile terminal of claim 1, wherein said at least one camera comprises first and second cameras, said first camera ~~adapted~~ configured to record at least one still image of the user from at least the first angle of view and said second camera ~~adapted~~ configured to record at least one still image of the user from at least the second angle of view.

13. (Currently Amended) A mobile terminal for recognizing a user's identity when they are attempting to access a system, comprising:

at least one charged coupled device (CCD) camera ~~adapted~~ configured to obtain at least two still images of the user's face from at least two different predetermined angles of view and to obtain at least one still image of the user's face;

memory ~~means for storing~~ unit configured to store user profile information relating to authorized users of a system; and

processing ~~means-unit~~ connected to said at least one CCD camera and said light source ~~for generating~~configured to generate a 3-dimensional model of the user's face using the at least two still images, and ~~for generating~~to generate a facial texture bit map of the user's face using the at least one still image, said processing ~~means-unit is configured to compare~~ ~~comparing~~ the 3-dimensional model and the facial texture bit map to the stored user profile information contained in said memory ~~means-unit~~ and ~~enabling~~ access to the system when the generated 3-dimensional model and facial texture bit map match a user profile stored in said memory ~~means-unit~~.

14. (Currently Amended) The mobile terminal of claim 13, further comprising a light source ~~for projecting~~to project structured light on the user's face ~~for use in obtaining~~to obtain said at least two still images of the user's face.

15. (Original) The mobile terminal of claim 13, wherein said mobile terminal is a mobile telephone.

16. (Currently Amended) The mobile terminal of claim 13, wherein said mobile terminal is operatively ~~arranged for transmitting~~configured to transmit the images to a server over a network and ~~receiving~~ receive a 3-dimensional model and a facial texture bit map from the server.

17. (Currently Amended) A method for recognizing a user using a mobile hand held terminal during an attempt to access the mobile terminal, comprising ~~the steps of:~~

obtaining, by the mobile terminal, at least two 2-dimensional still images of the user from at least two different angles of view;

sending the images to a server over a network;

generating, by the server, a 3-dimensional model of the user's face from the obtained images;

determining, by the server, the user's facial shape using the generated 3-dimensional model;

sending the 3-dimensional model and the user's facial shape to the mobile terminal;

comparing, at the mobile terminal, the determined facial shape with profile information stored in memory, the profile information comprising data relating to the facial shape of authorized users; and

determining, at the mobile terminal whether the determined facial shape matches the profile information stored in the memory.

18. (Original) The method of claim 17, wherein the mobile terminal is a mobile telephone.

19. (New) The mobile terminal of claim 1, wherein said at least one camera comprises a charged couple device (CCD) camera.

20. (New) A mobile device, comprising:

a camera means for obtaining at least two still images of the user's face from at least two different predetermined angles of view and to obtain at least one still image of the user's face;

memory means for storing user profile information relating to authorized users of a system; and

processing means connected to said at least one CCD camera and said light source, for generating a 3-dimensional model of the user's face using the at least two still images, and for generating a facial texture but map of the user's face using the at least one still image, said processing means is configured for comparing the 3-dimensional model and the facial texture bit map to the stored user profile information contained in said memory unit, and for accessing to the system when the generated 3-dimensional model and facial texture bit map match a user profile stored in said memory means.